



System And Method For Detecting Emitter
Signals
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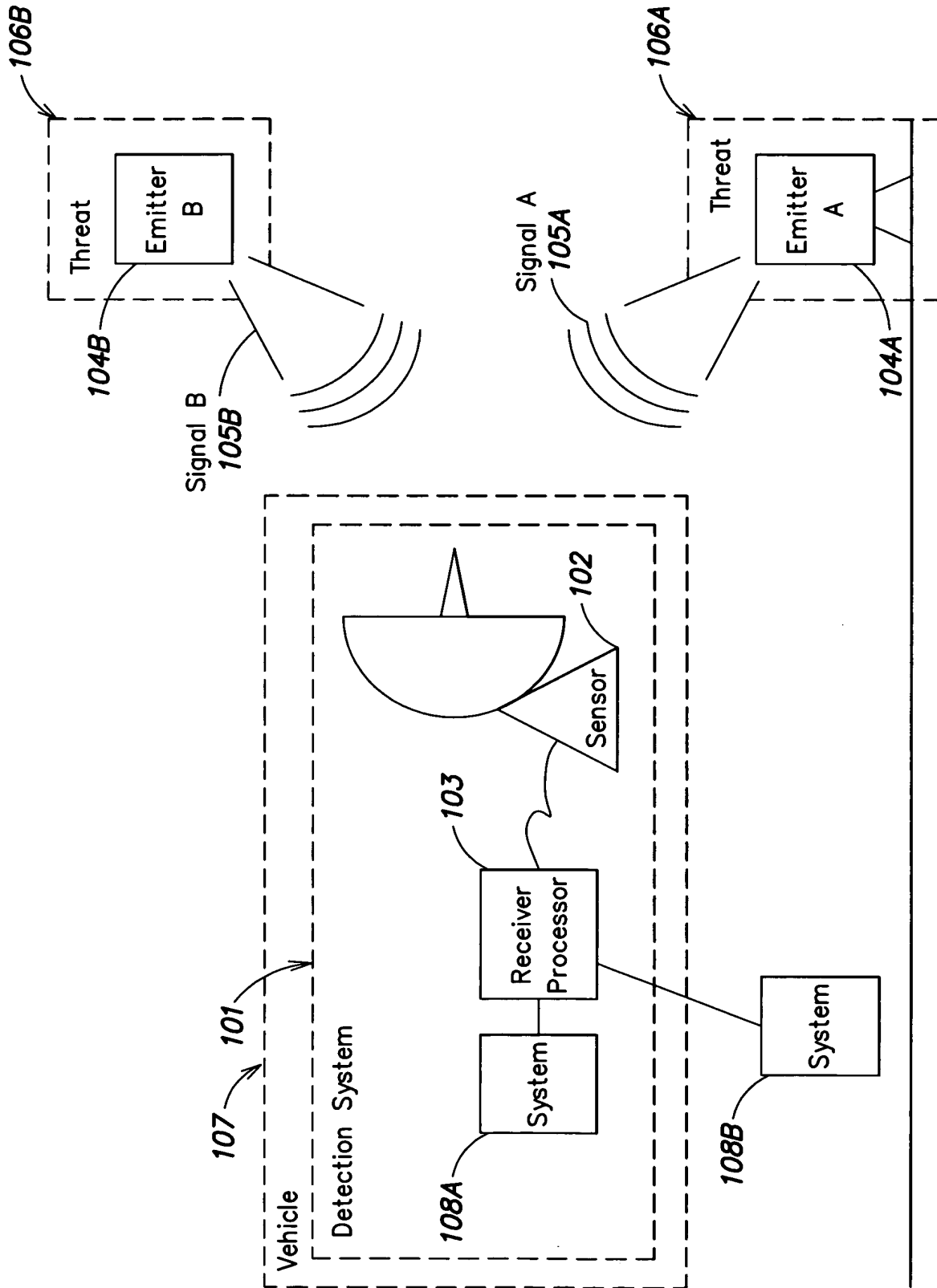


FIG. 1

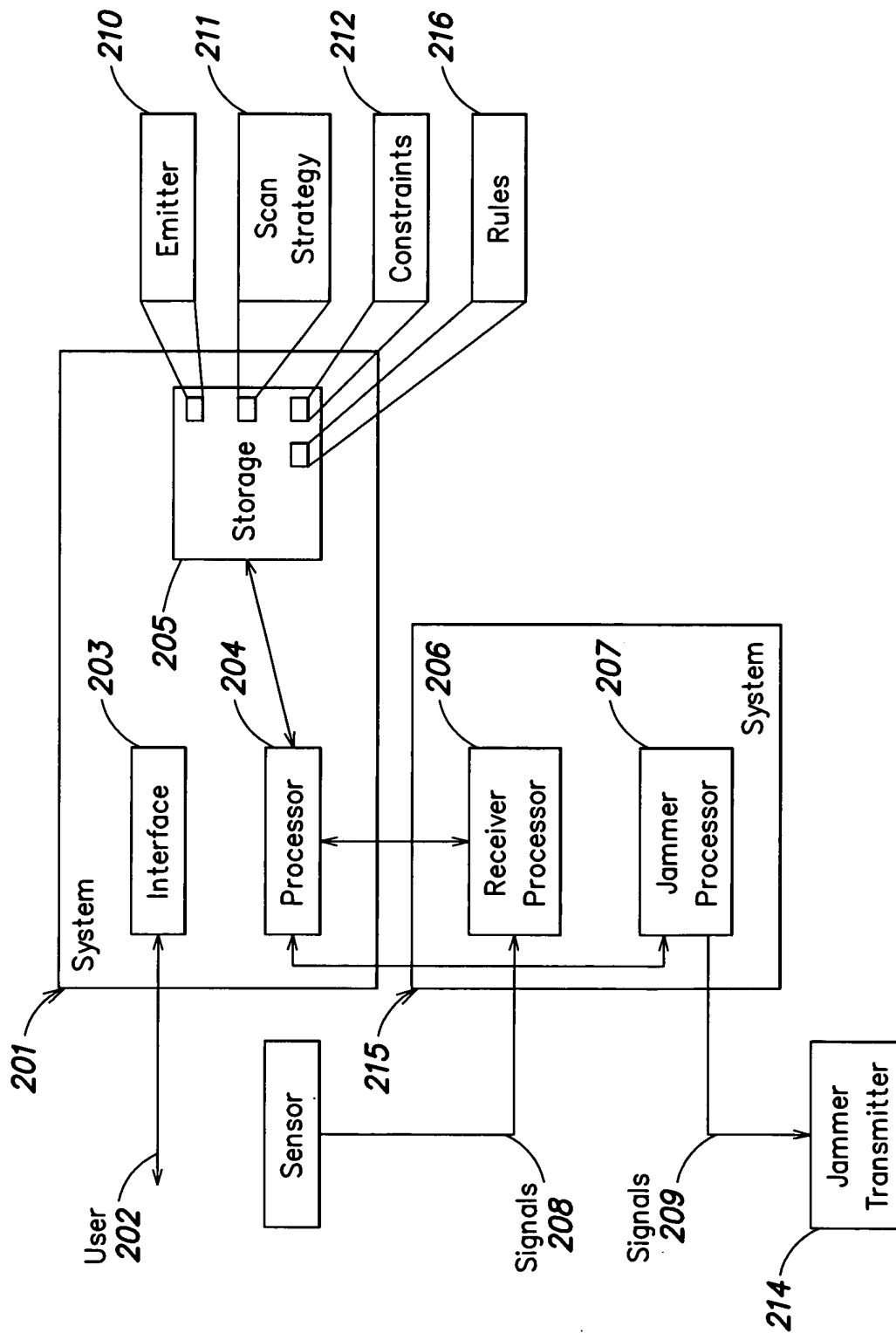


FIG. 2

Process
300 →

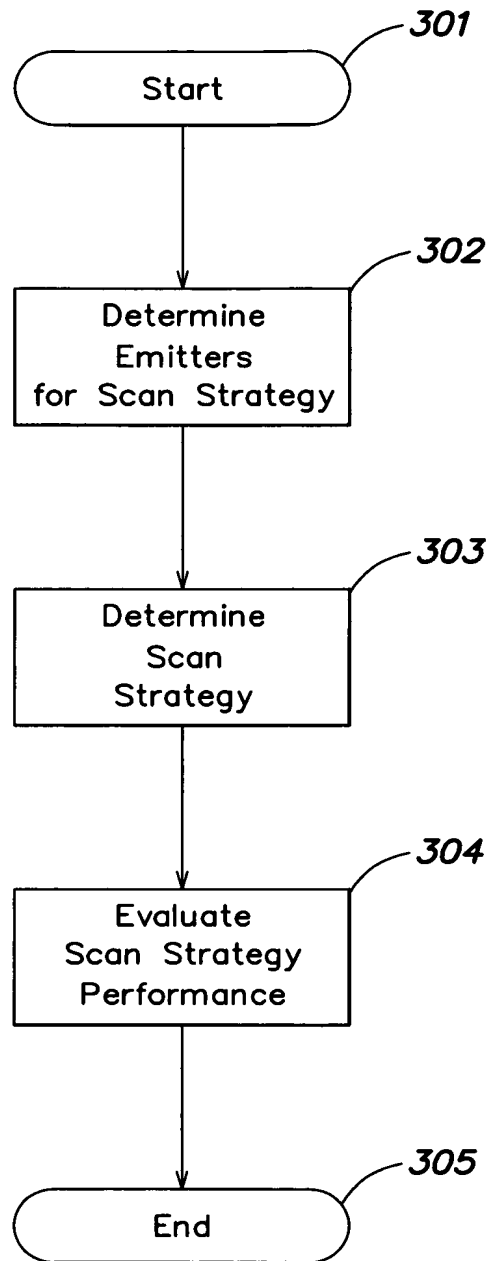


FIG. 3

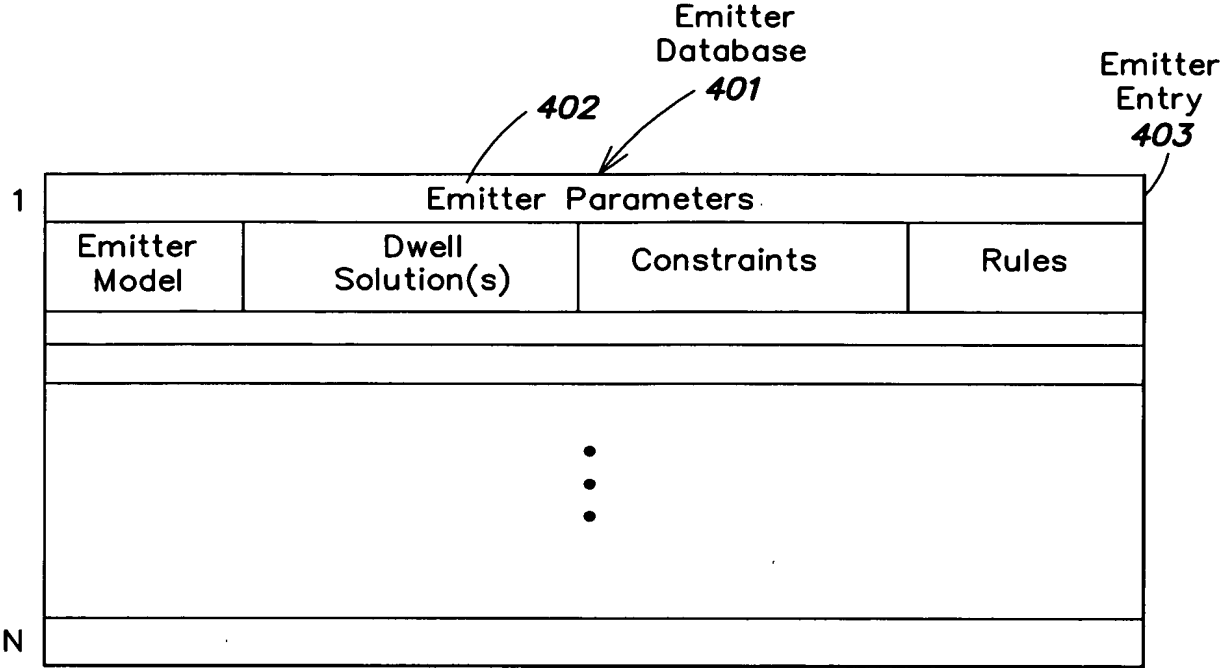


FIG. 4

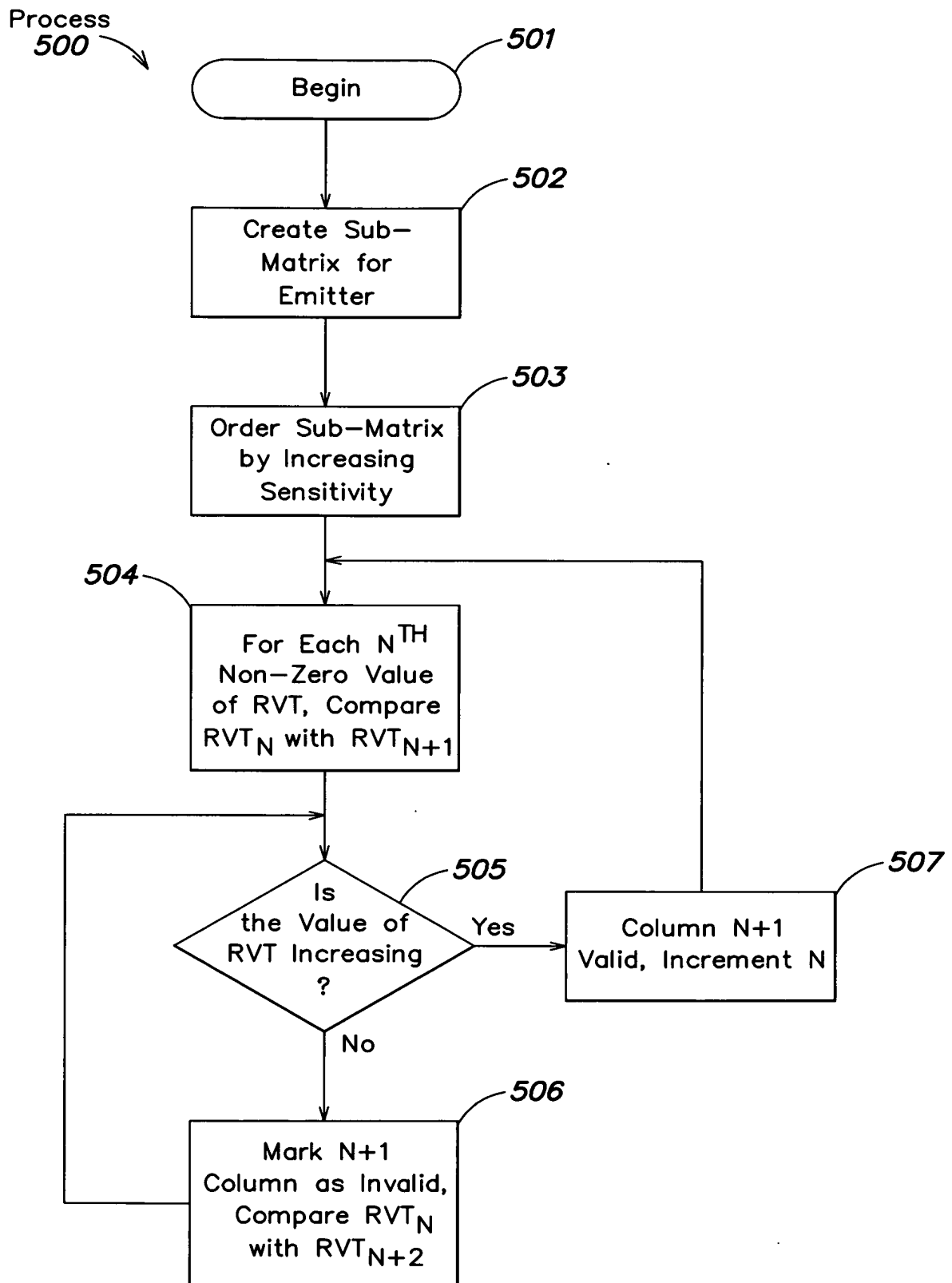


FIG. 5

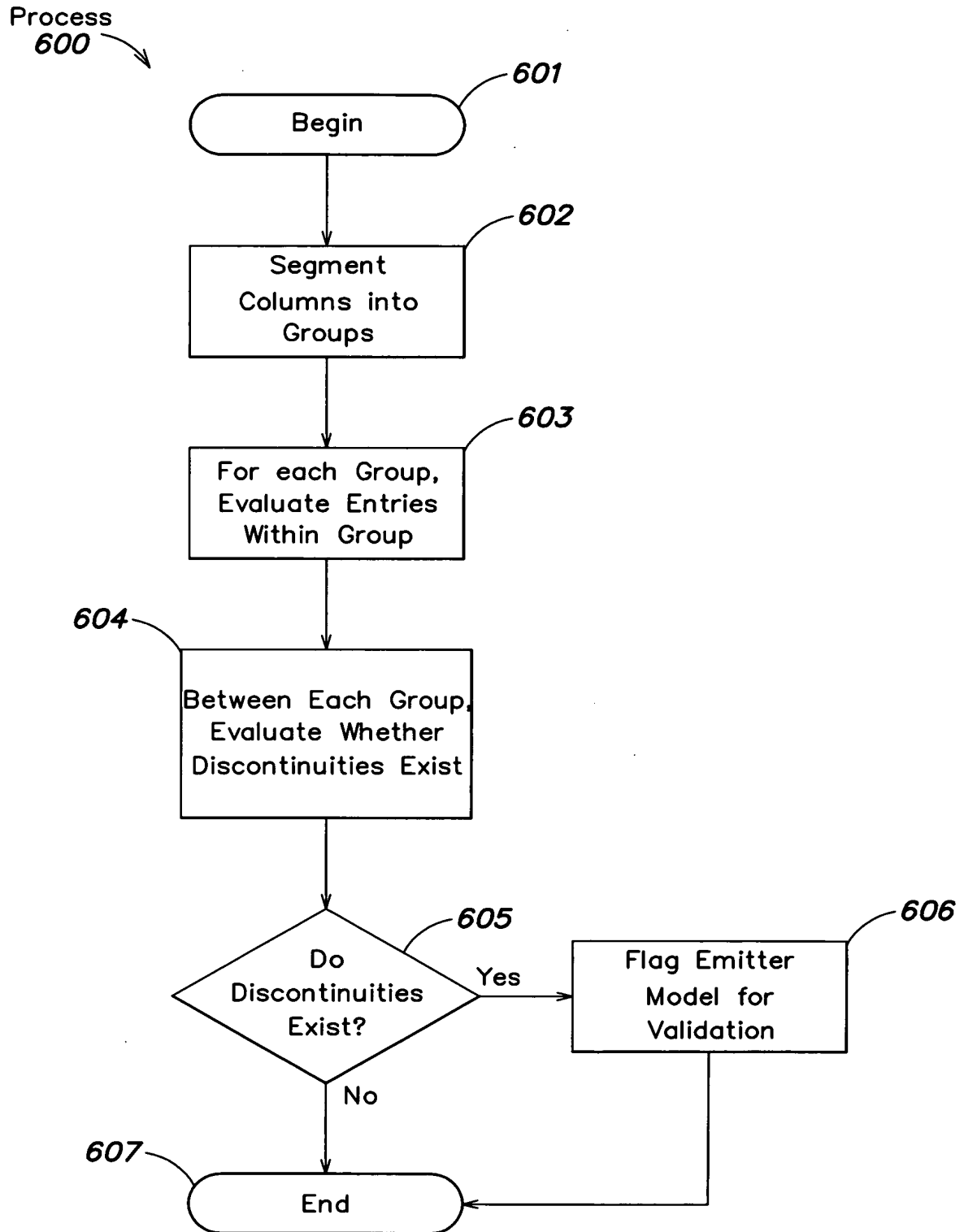


FIG. 6

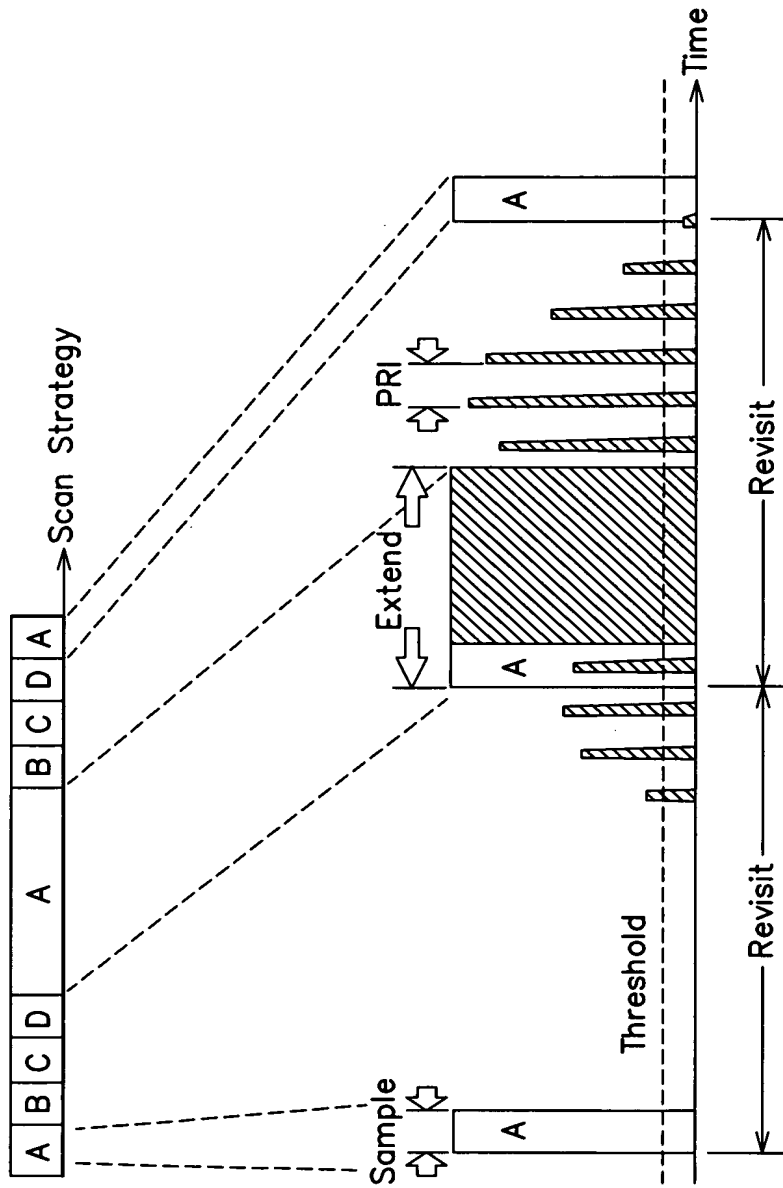
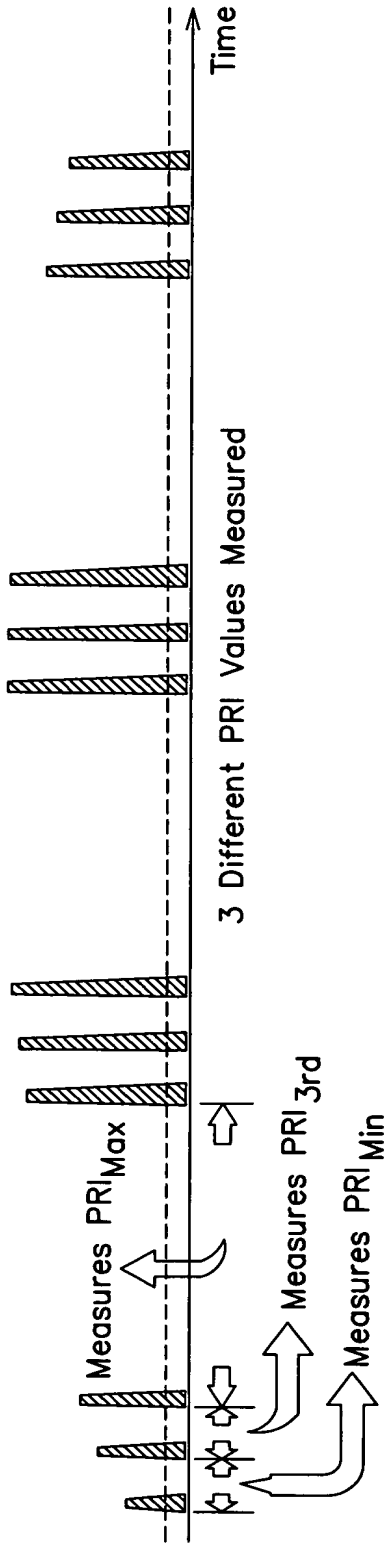
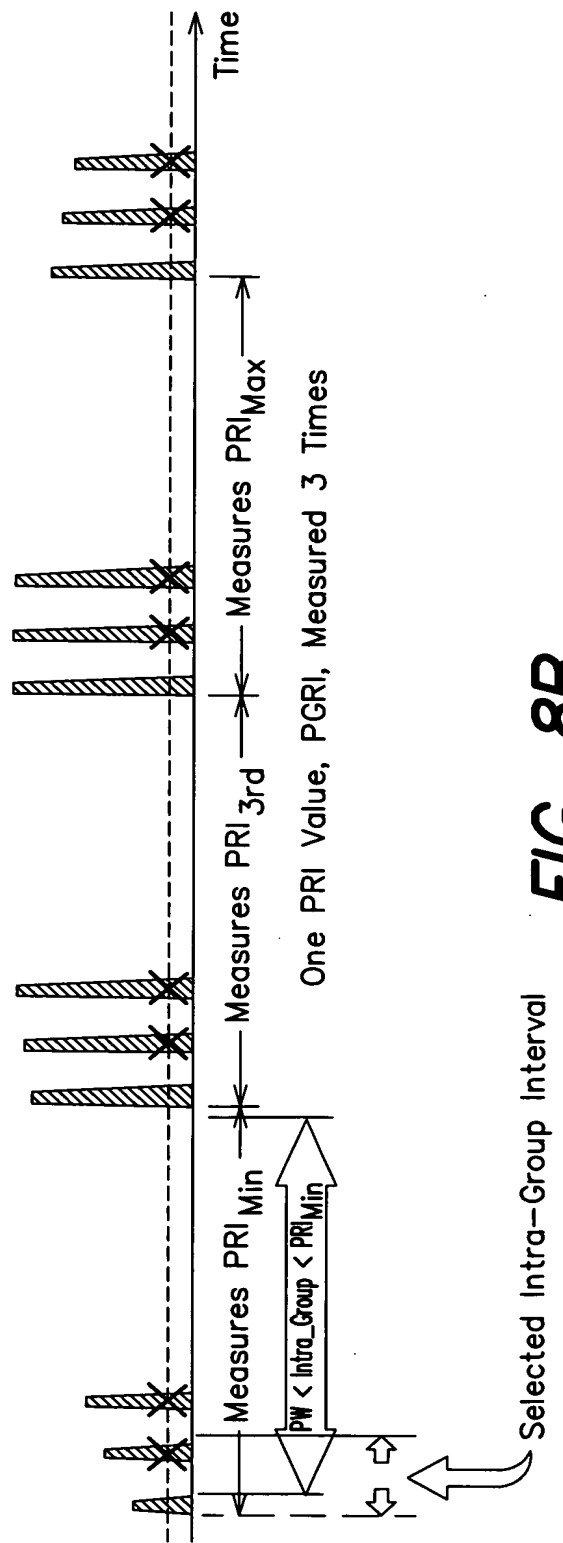


FIG. 7

NO PULSE GROUPING LOGIC:



WITH PULSE GROUPING LOGIC:



Selected Intra-Group Interval

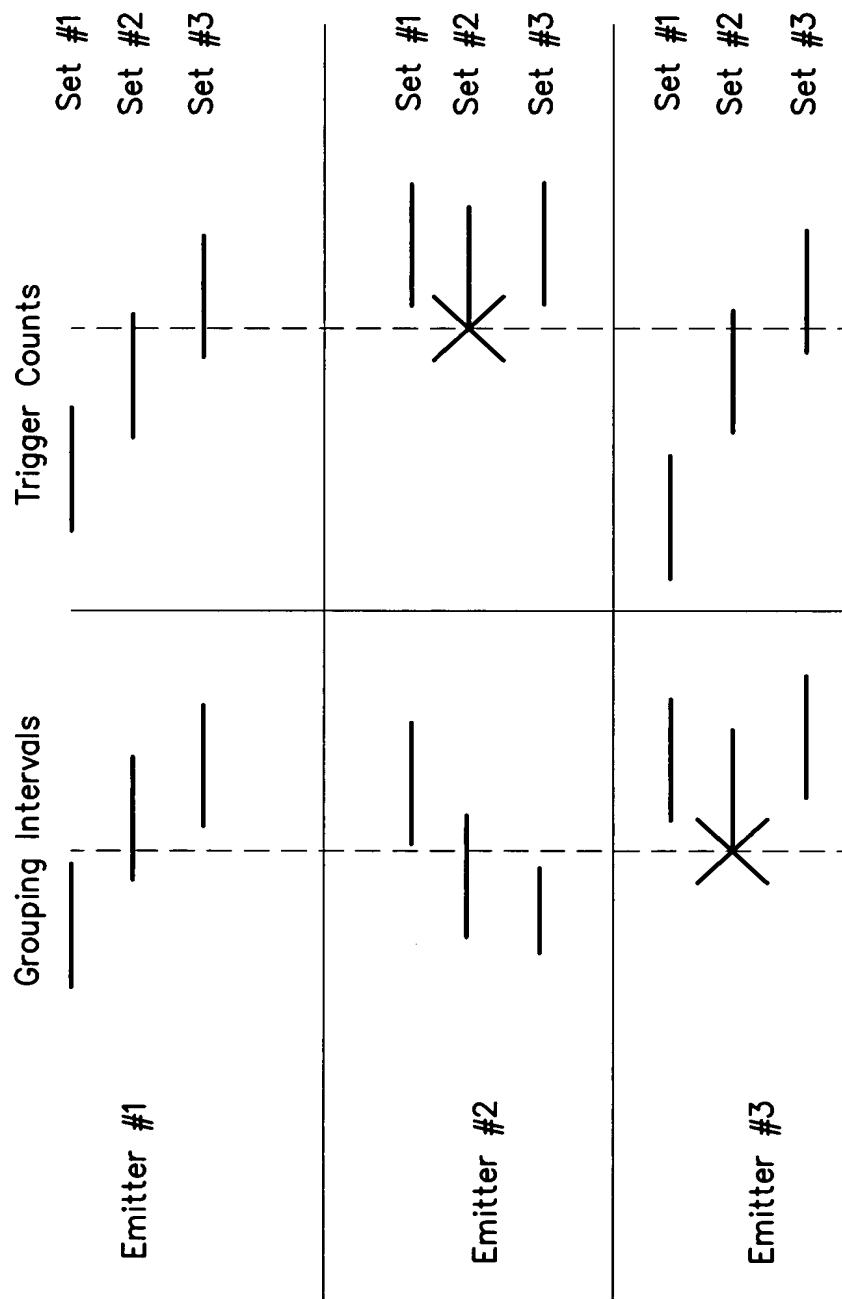
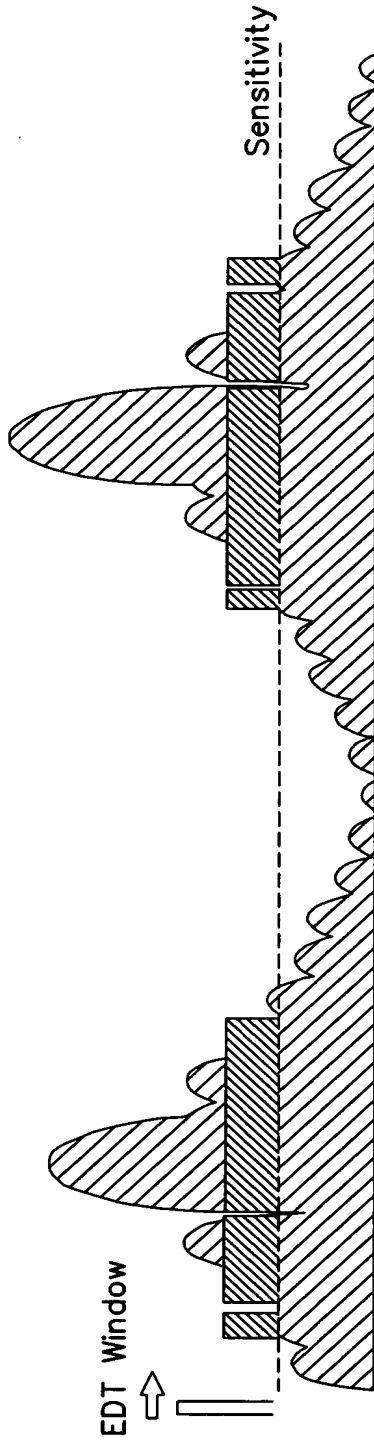
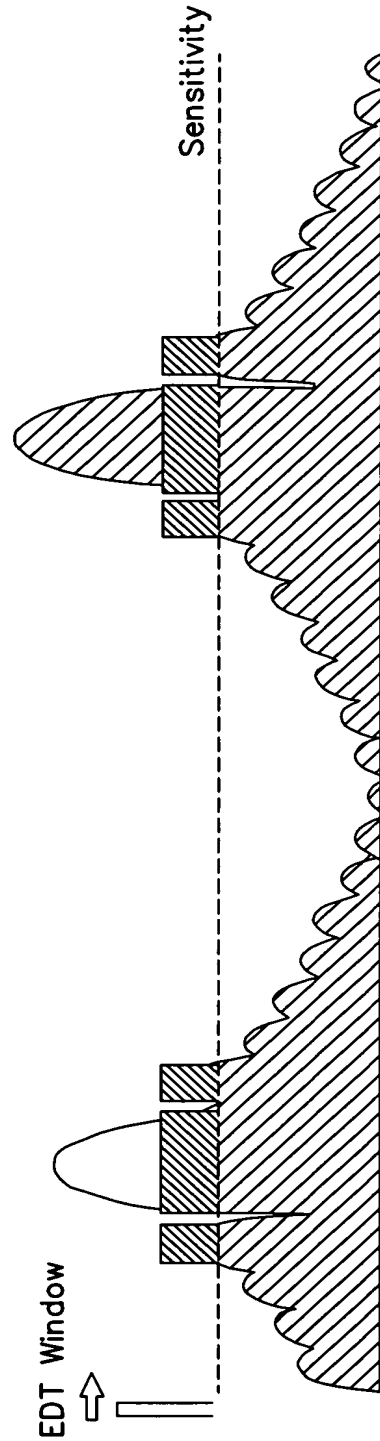


FIG. 9



Discrete Illuminations (TIBS)

FIG. 10A



Discrete Illuminations (TIBS)

FIG. 10B

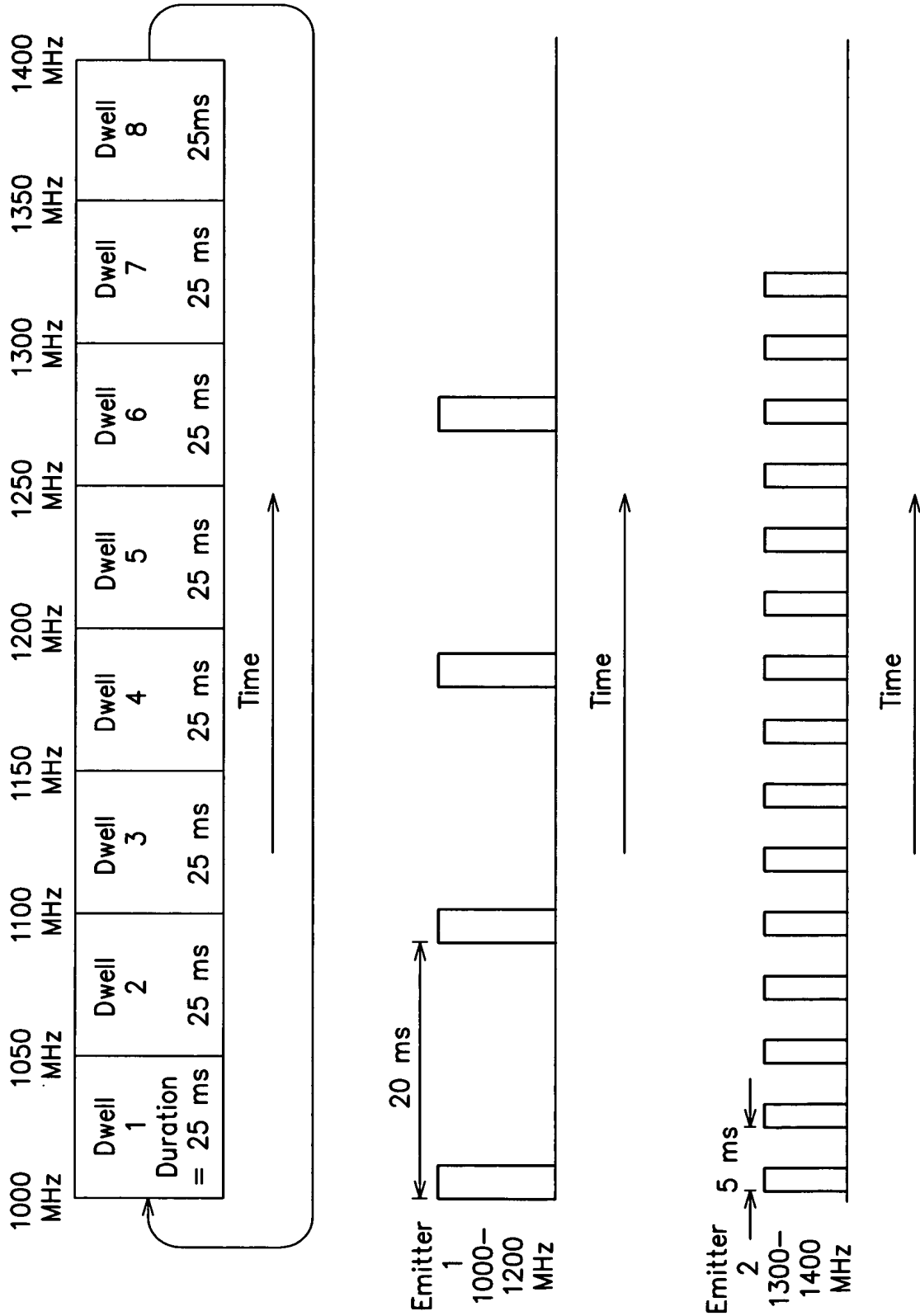


FIG. 11

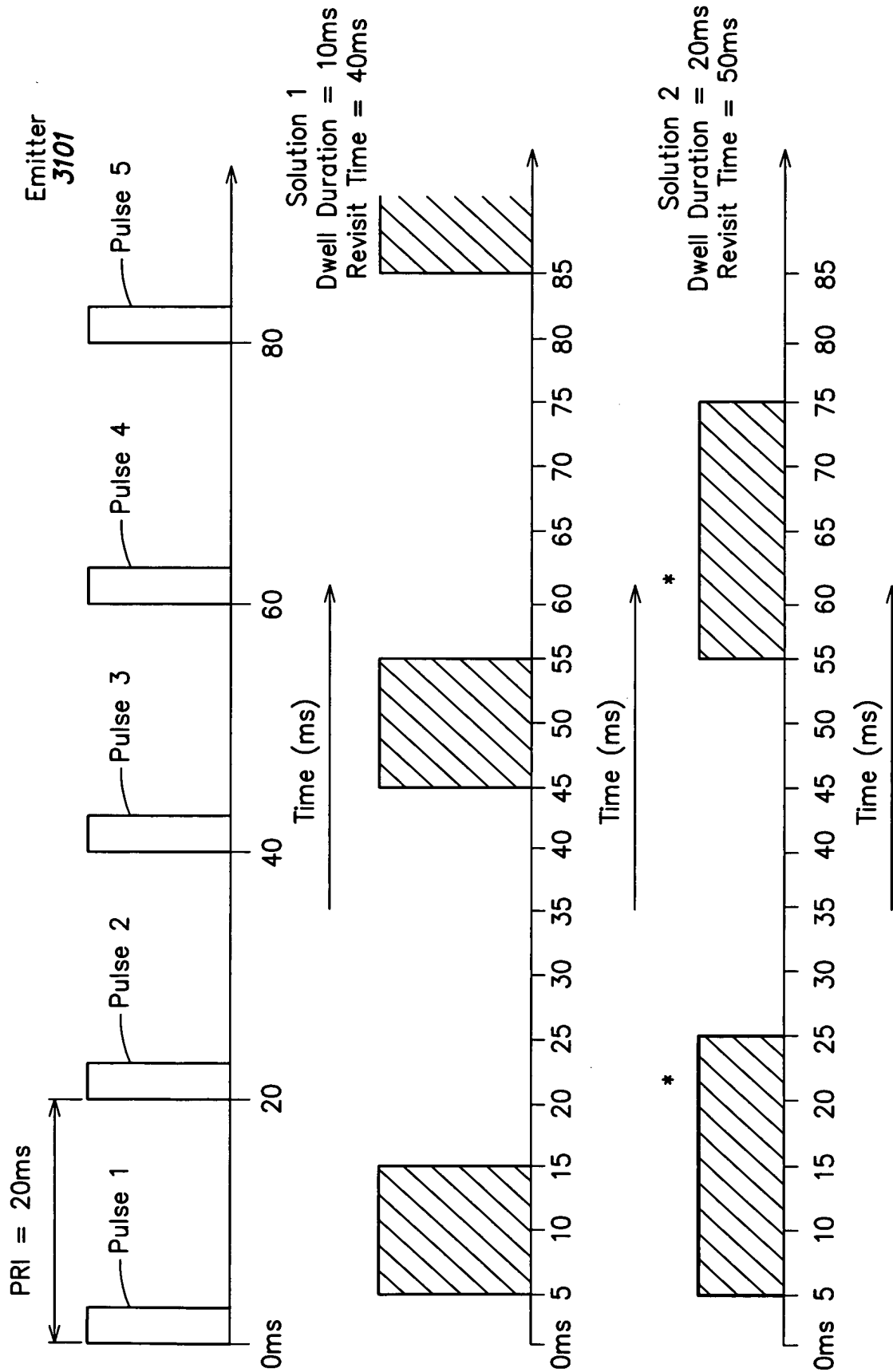


FIG. 12

4000

| Emitter Name | Detecting Method 1 250MHz IF/ 15MHz VBW RVT | Detecting Method 2 30MHz IF/ 15MHz VBW RVT | RF Min (MHz) | RF Max (MHz) | Min MDT (ms) |
|--------------|--|---|-----------------|-----------------|--------------------|
| E1 | 100 ms | 650 ms | 1000 | 1300 | 3 |
| E2 | 120 ms | 780 ms | 1220 | 1350 | 5 |
| E3 | 110 ms | 330 ms | 1510 | 1810 | 2 |
| E4 | 130 ms | 390 ms | 1730 | 1860 | 4 |

FIG. 13

Dwell 1

DD_{Max} = 5

RVT_{Min} = 100

1000

1250

Solution 1

$$\text{Cost} = 5/100 = .05$$

| 1000 | 1030 | 1060 | 1090 | 1120 | 1150 | 1180 | 1210 | 1240 | 1270 |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------|
| Dwell 1 | Dwell 2 | Dwell 3 | Dwell 4 | Dwell 5 | Dwell 6 | Dwell 7 | Dwell 8 | Dwell 9 | |
| DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 3 | DD _{Max} 5 | DD _{Max} 5 | |
| RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | RVT _{Min} 650 | |
| <p style="text-align: center;">Solution 2</p> <p style="text-align: right;">Total Cost = 31/650 ≈ .048</p> | | | | | | | | | |
| <p>Cost + Cost + Cost + Cost + Cost + Cost + Cost + Cost + Cost = 31/650 ≈ .048</p> <p>3/650 3/650 3/650 3/650 3/650 3/650 3/650 5/650 5/650</p> | | | | | | | | | |

FIG. 14A

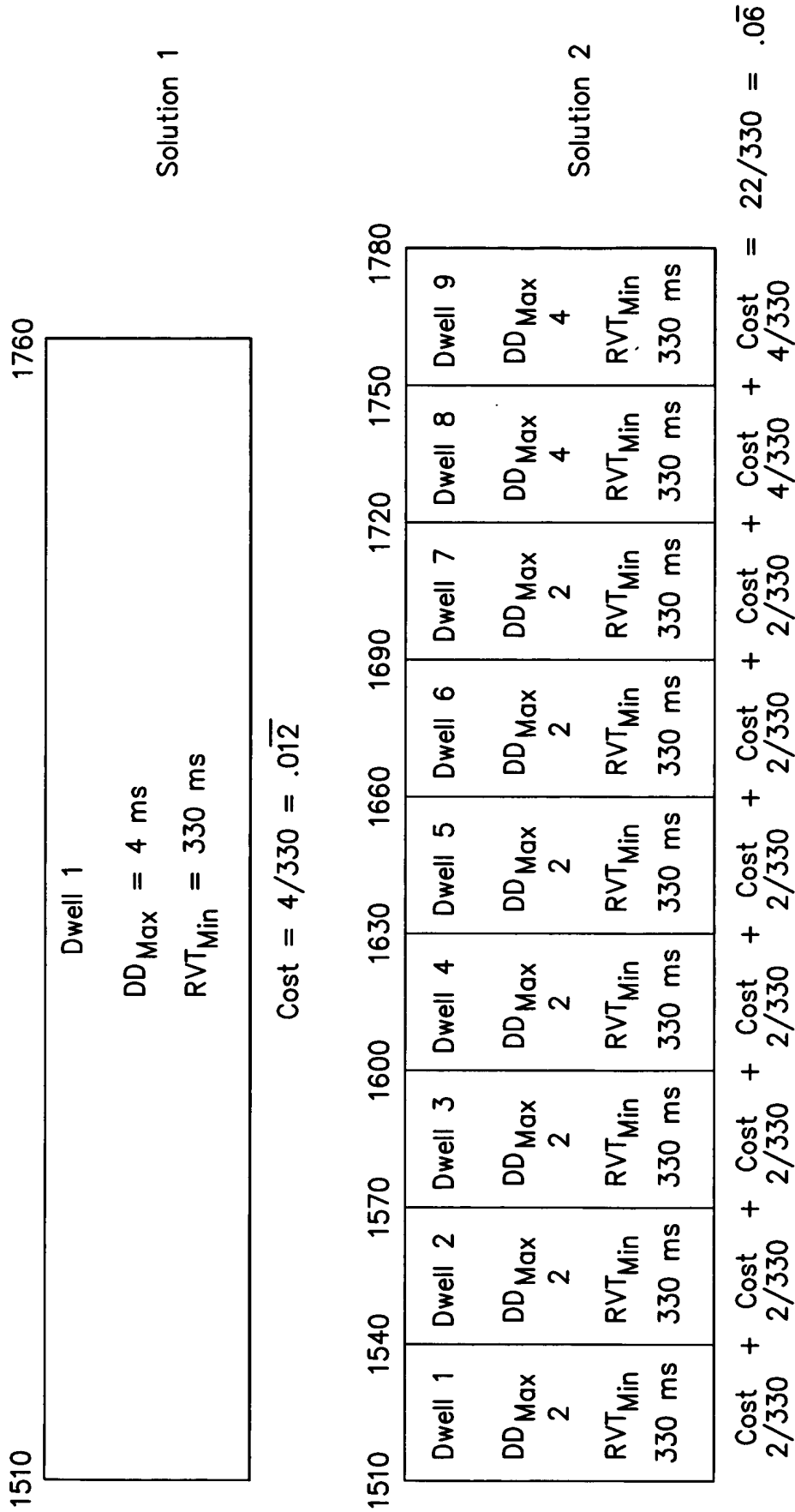


FIG. 14B

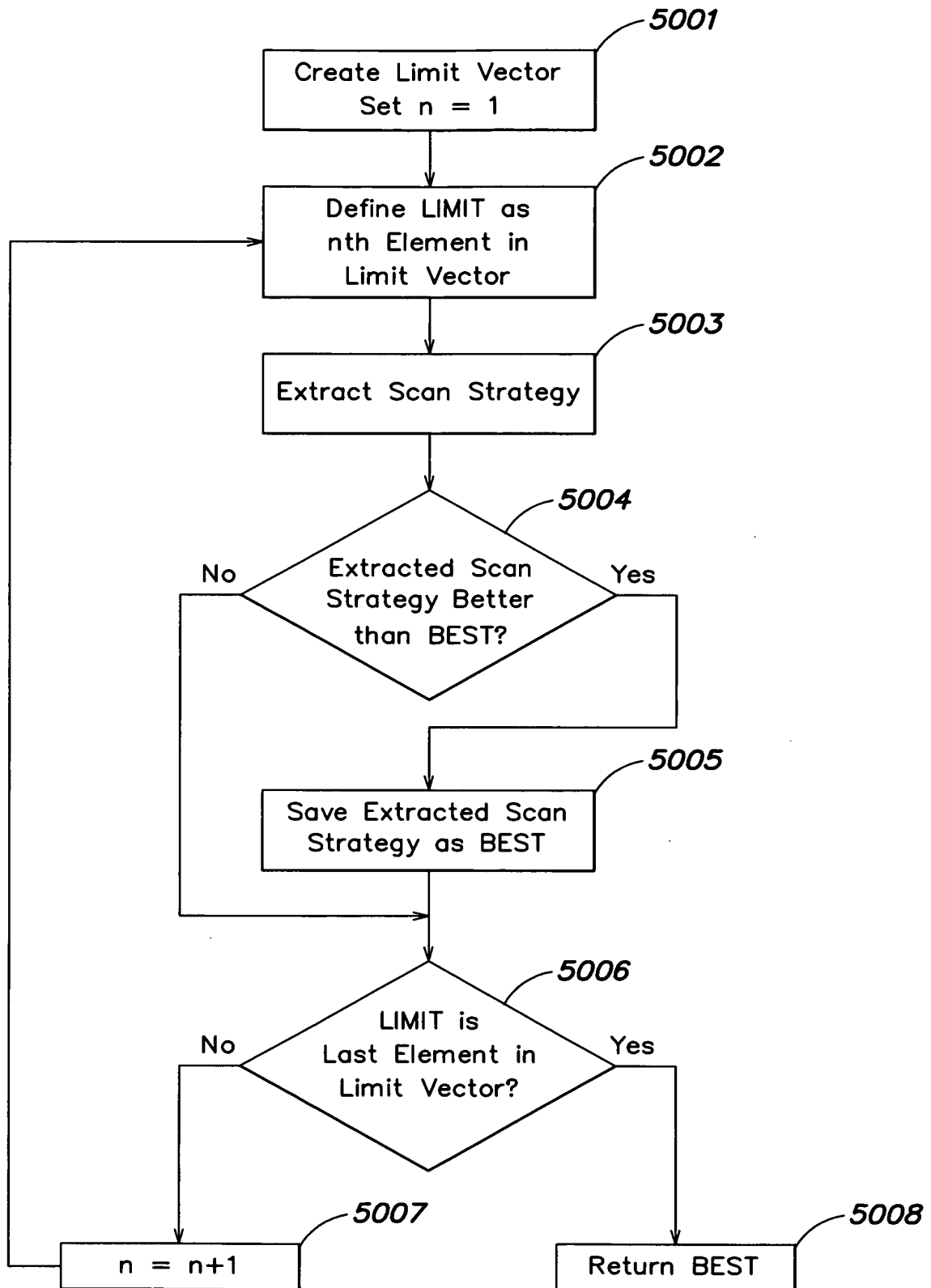


FIG. 15

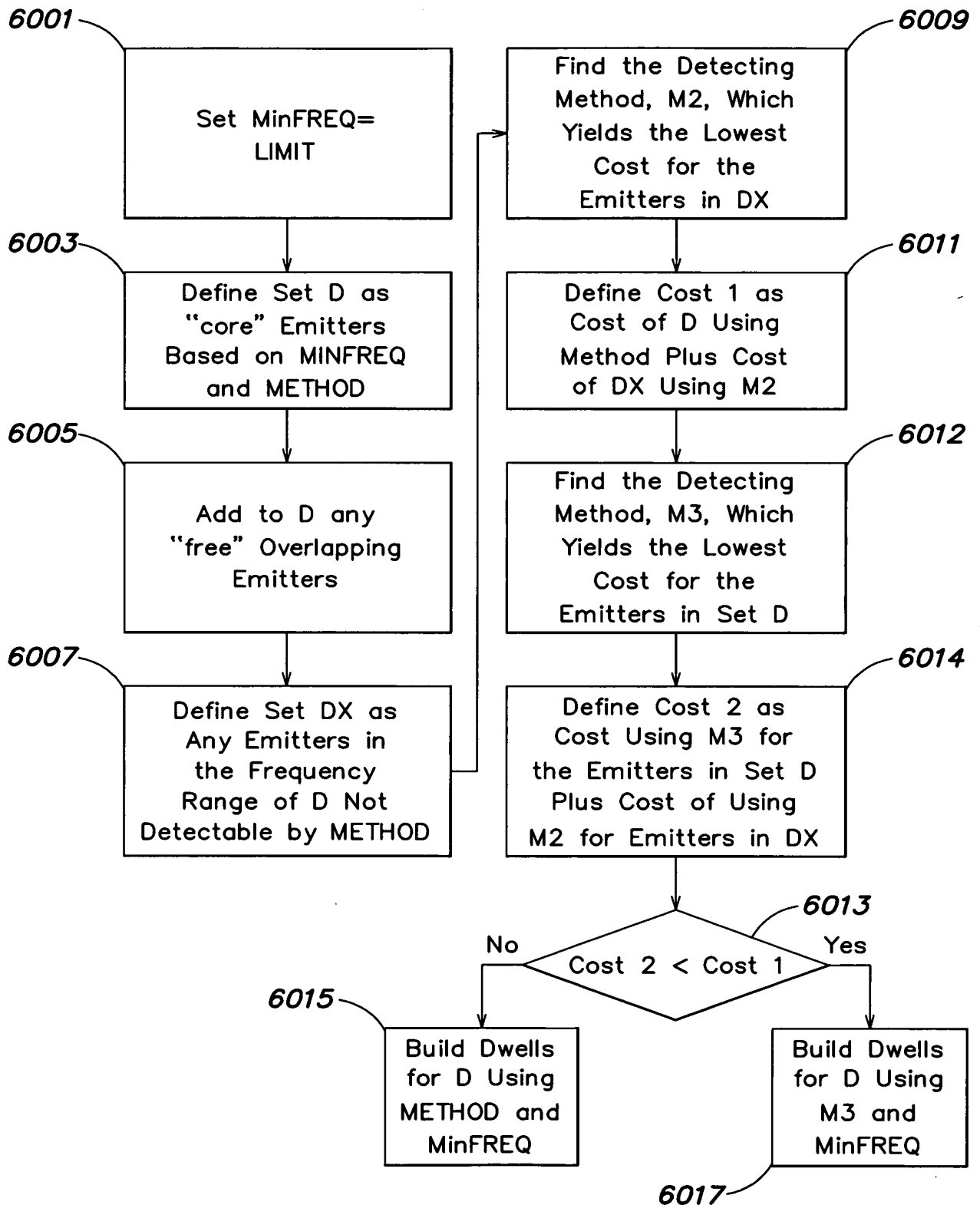


FIG. 16

| Name | RF Min | RF Max |
|------|--------|--------|
| E1 | 1100 | 1200 |
| E2 | 1150 | 1250 |

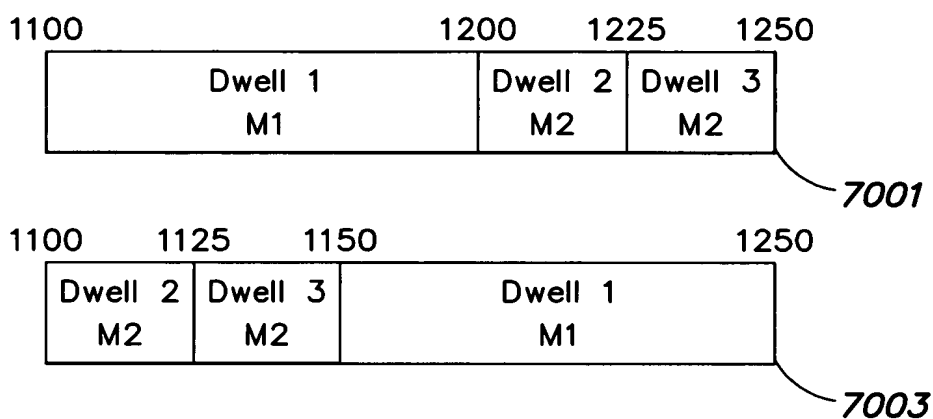


FIG. 17

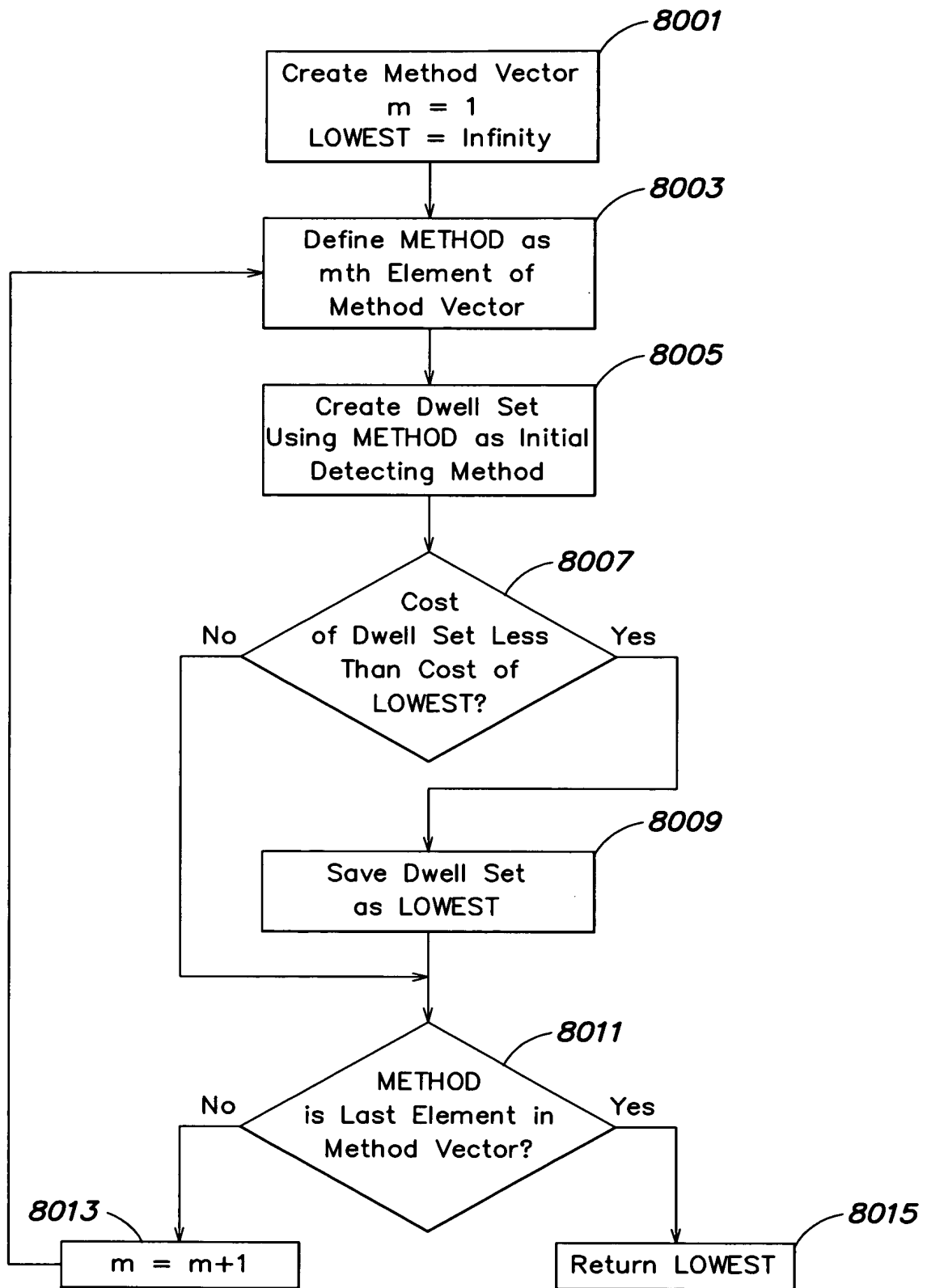


FIG. 18

| Emitter | Dwell Duration (ms) | Revisit Time (ms) |
|-----------|---------------------|-------------------|
| Emitter 1 | 1 | 500 |
| Emitter 2 | 2 | 1200 |

FIG. 19

| Emitter | Dwell Duration (ms) | Revisit Time (ms) | Cost |
|-----------|---------------------|-------------------|------|
| Emitter 1 | 1 | 500 | .002 |
| Emitter 2 | 5 | 1000 | .005 |

FIG. 20

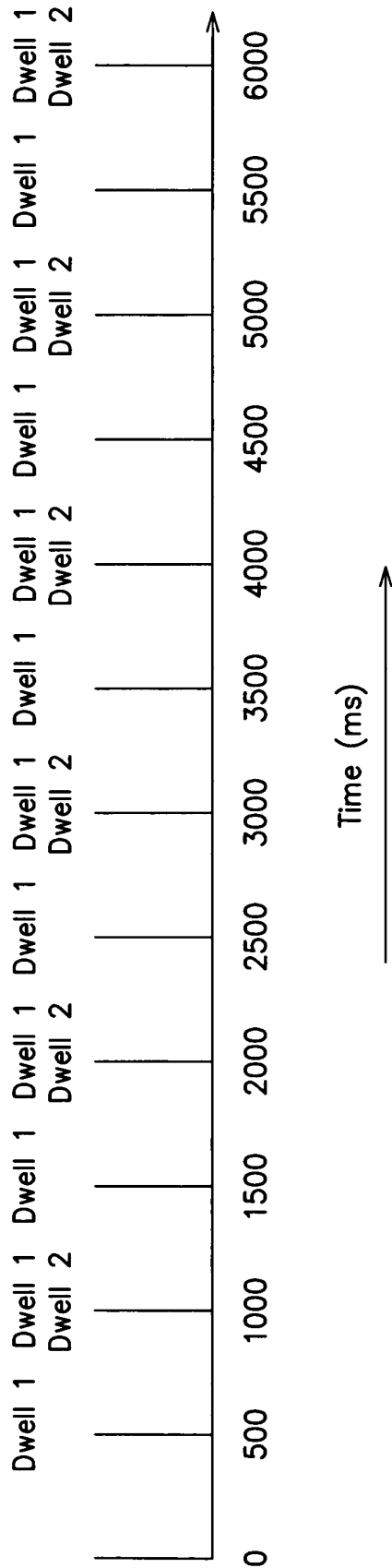


FIG. 21

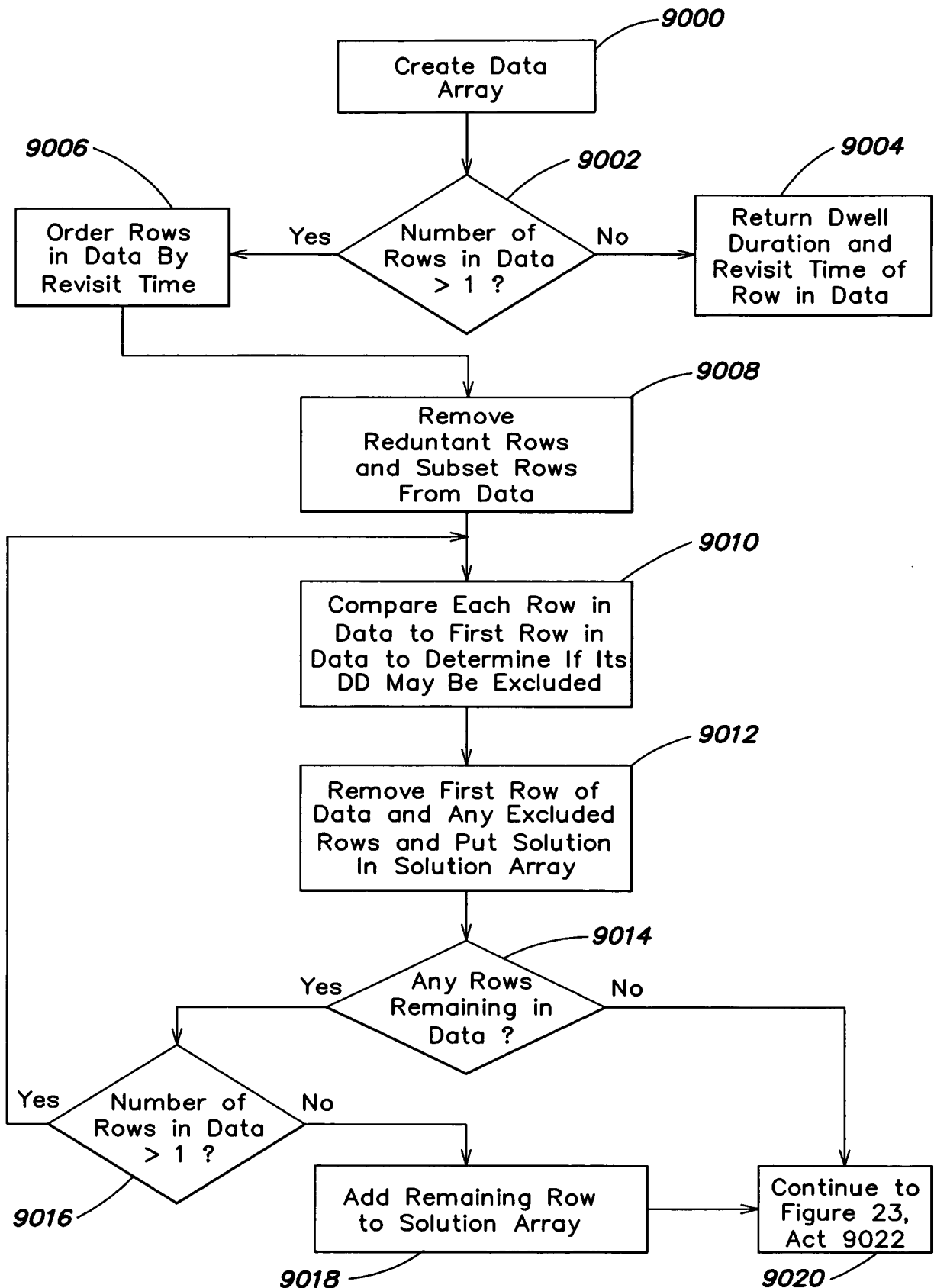


FIG. 22

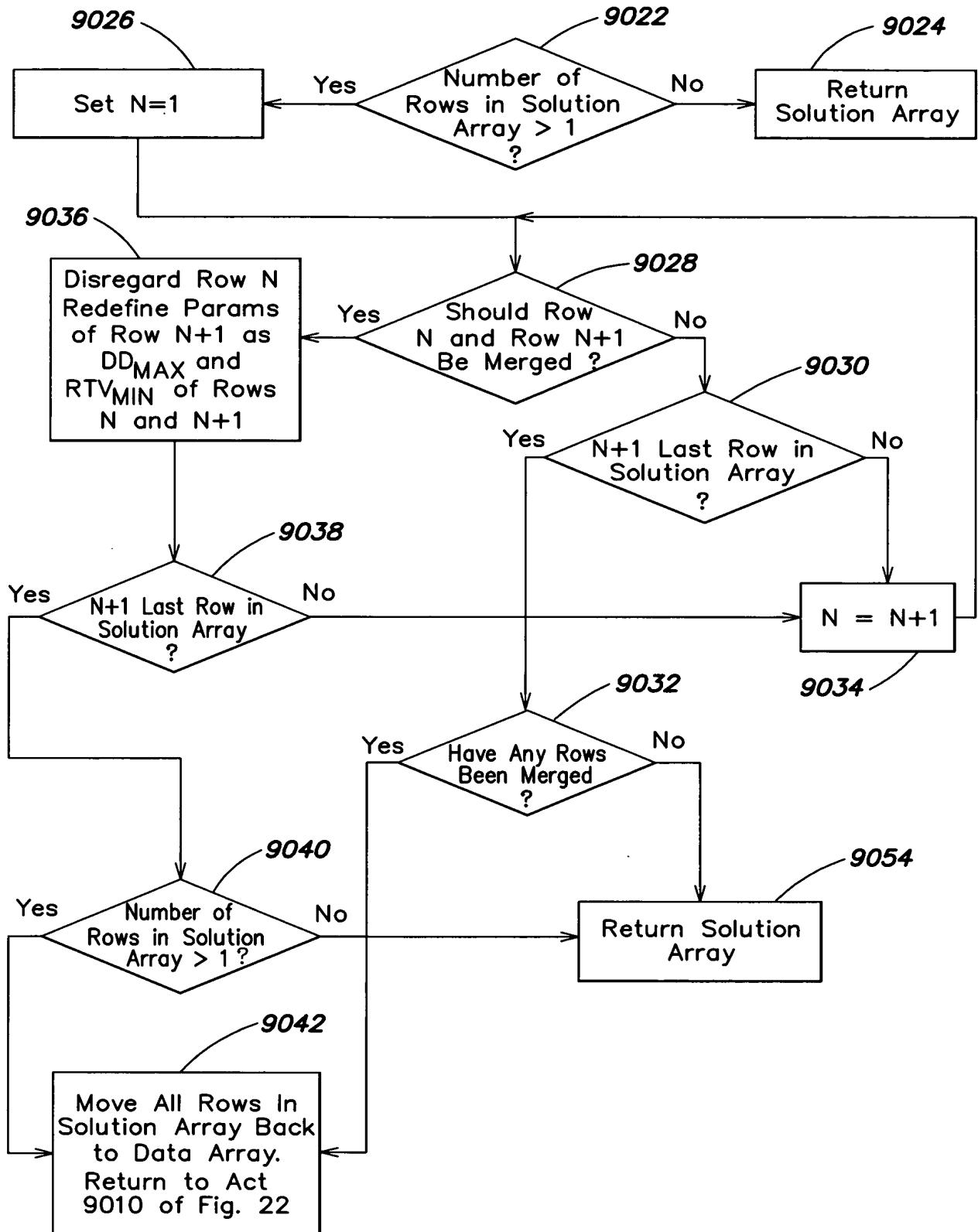


FIG. 23

9044

| Data | | |
|------|-----|------|
| MDT | EDT | RVT |
| 1 | 7 | 500 |
| 2 | 9 | 700 |
| 2.3 | 11 | 800 |
| 3 | 19 | 2000 |
| 3.05 | 17 | 2868 |

9051

9052

FIG. 24C

9044

| Data | | |
|------|-----|------|
| MDT | EDT | RVT |
| 1 | 7 | 500 |
| 2 | 9 | 700 |
| 2.3 | 11 | 800 |
| 0.5 | 3.5 | 1000 |
| 3 | 19 | 2000 |
| 3 | 19 | 2000 |
| 3.05 | 17 | 2868 |

9048

9049

9050

FIG. 24B

9044

| Data | | |
|------|-----|------|
| MDT | EDT | RVT |
| 3.05 | 17 | 2868 |
| 3 | 19 | 2000 |
| 3 | 19 | 2000 |
| 1 | 7 | 500 |
| 2 | 9 | 700 |
| 2.3 | 11 | 800 |
| 0.5 | 3.5 | 1000 |

FIG. 24A

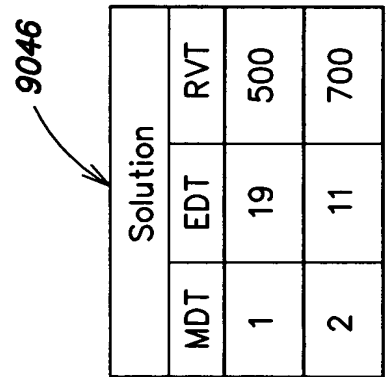
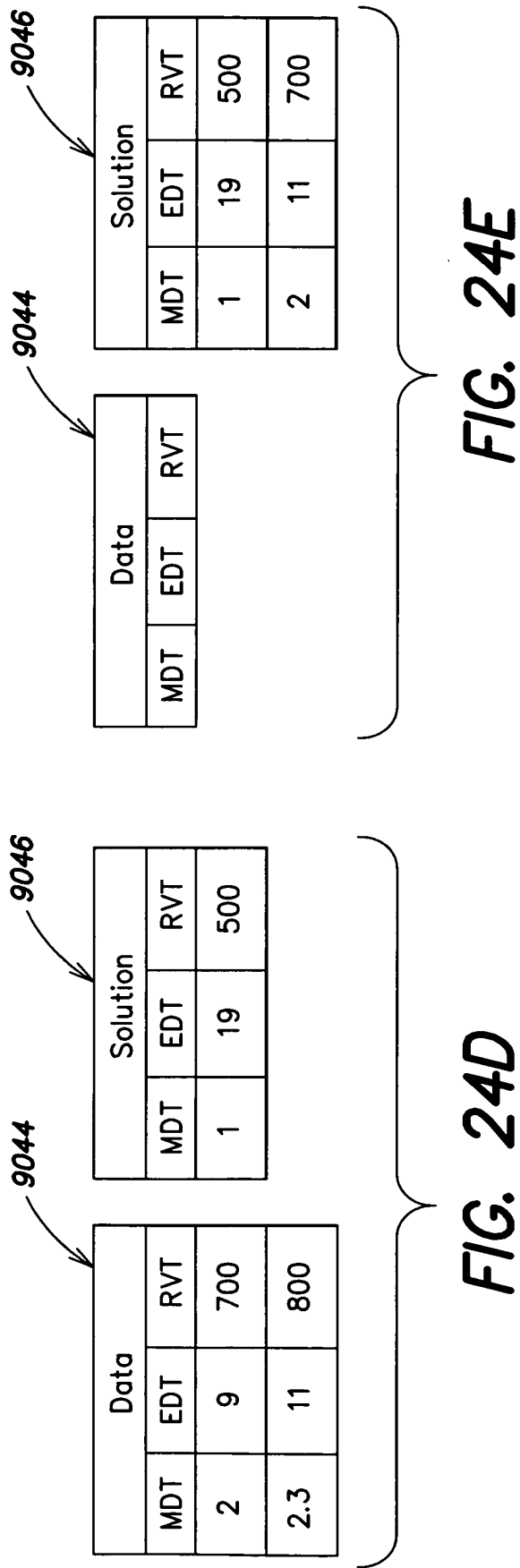


FIG. 24F

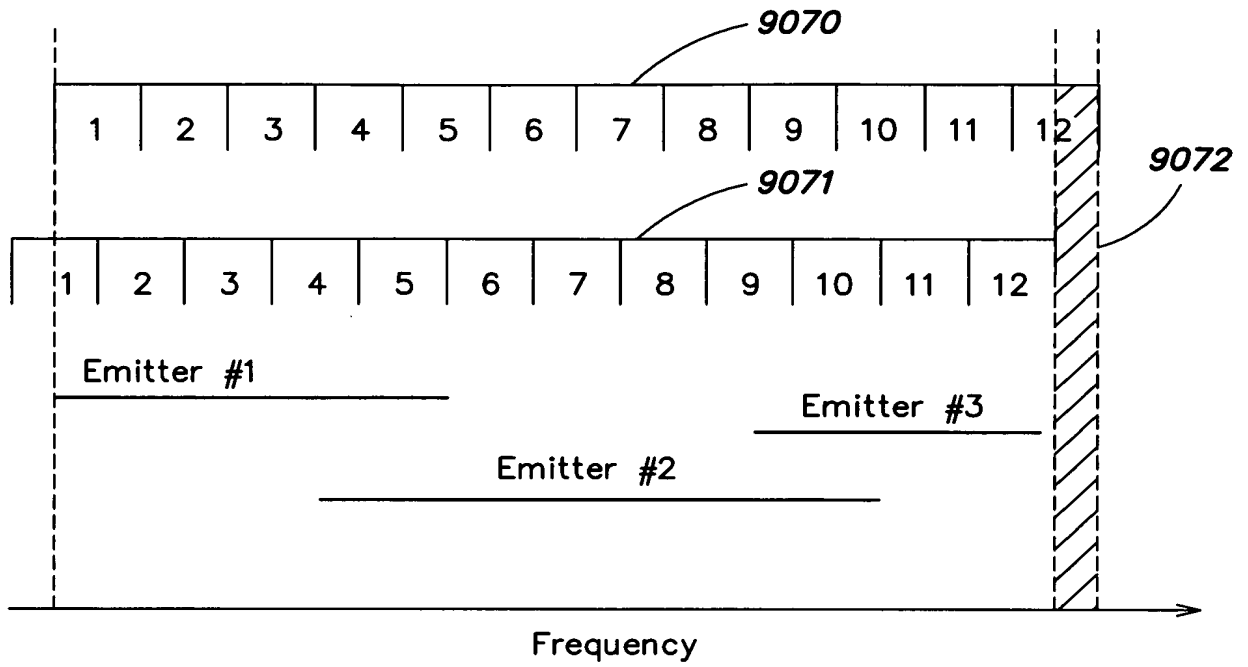


FIG. 25

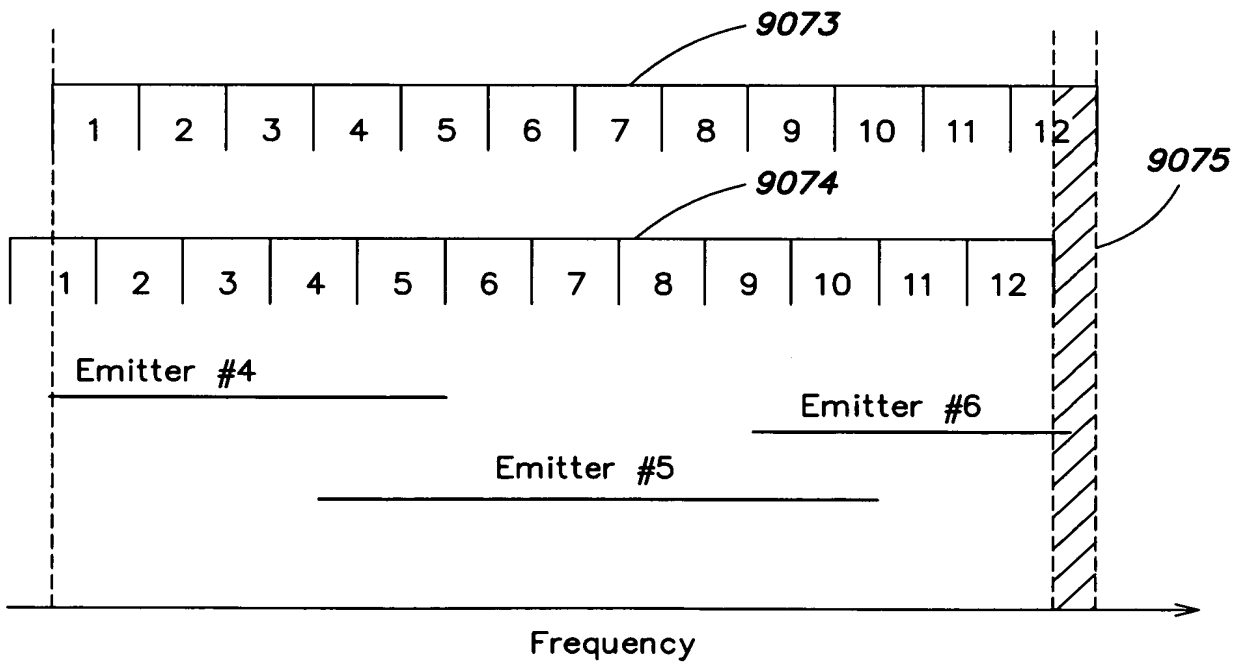


FIG. 26

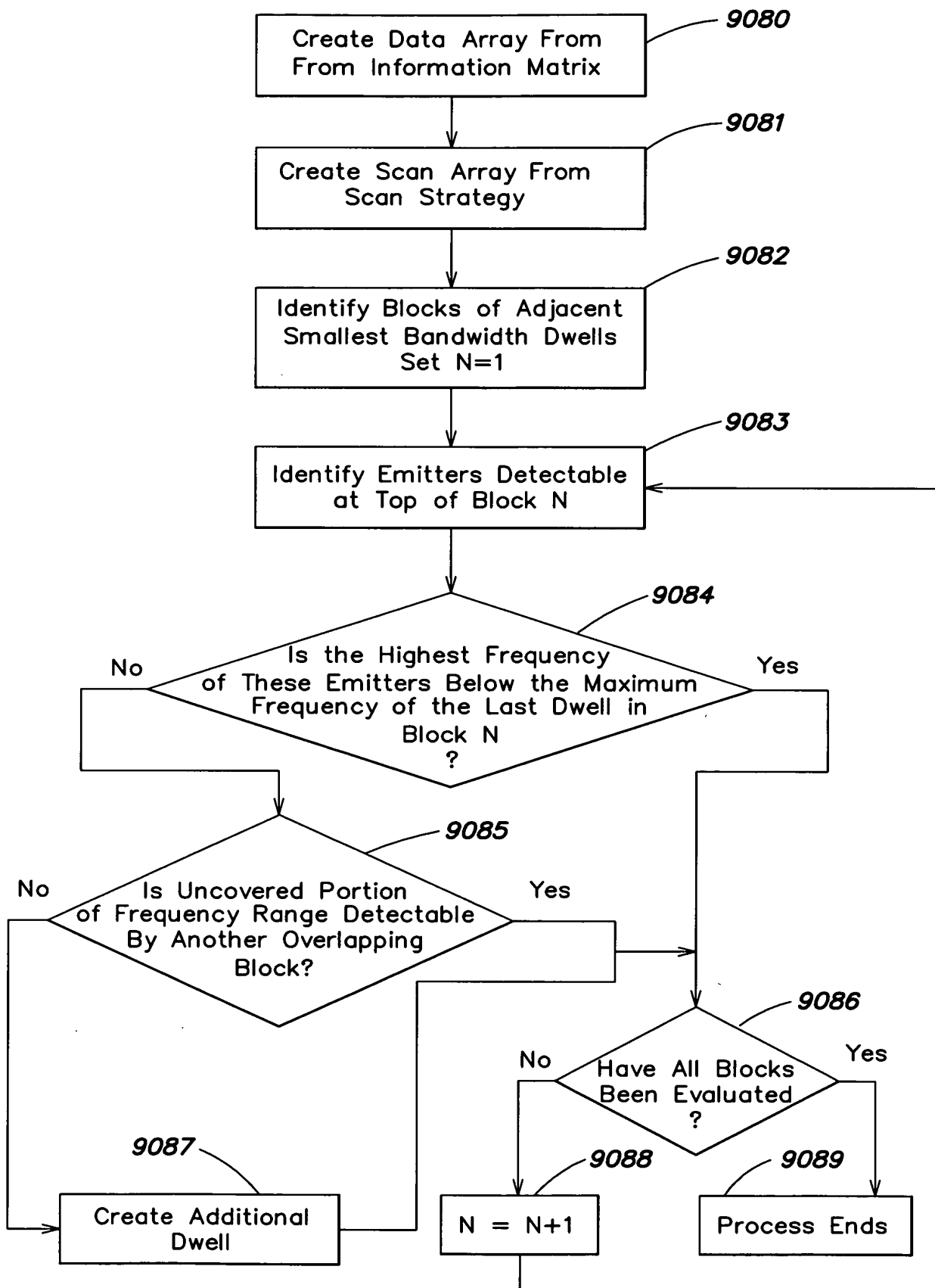
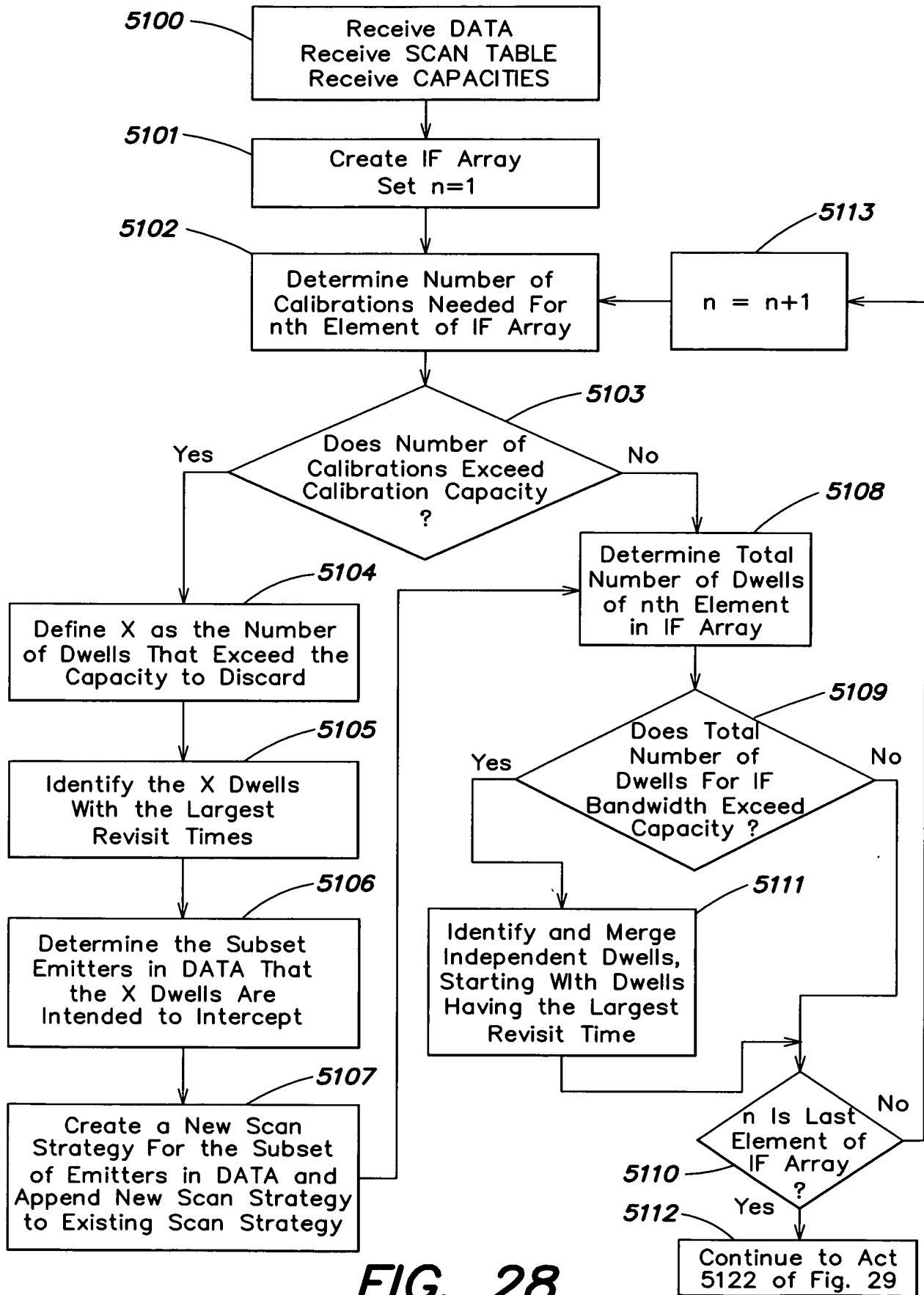


FIG. 27



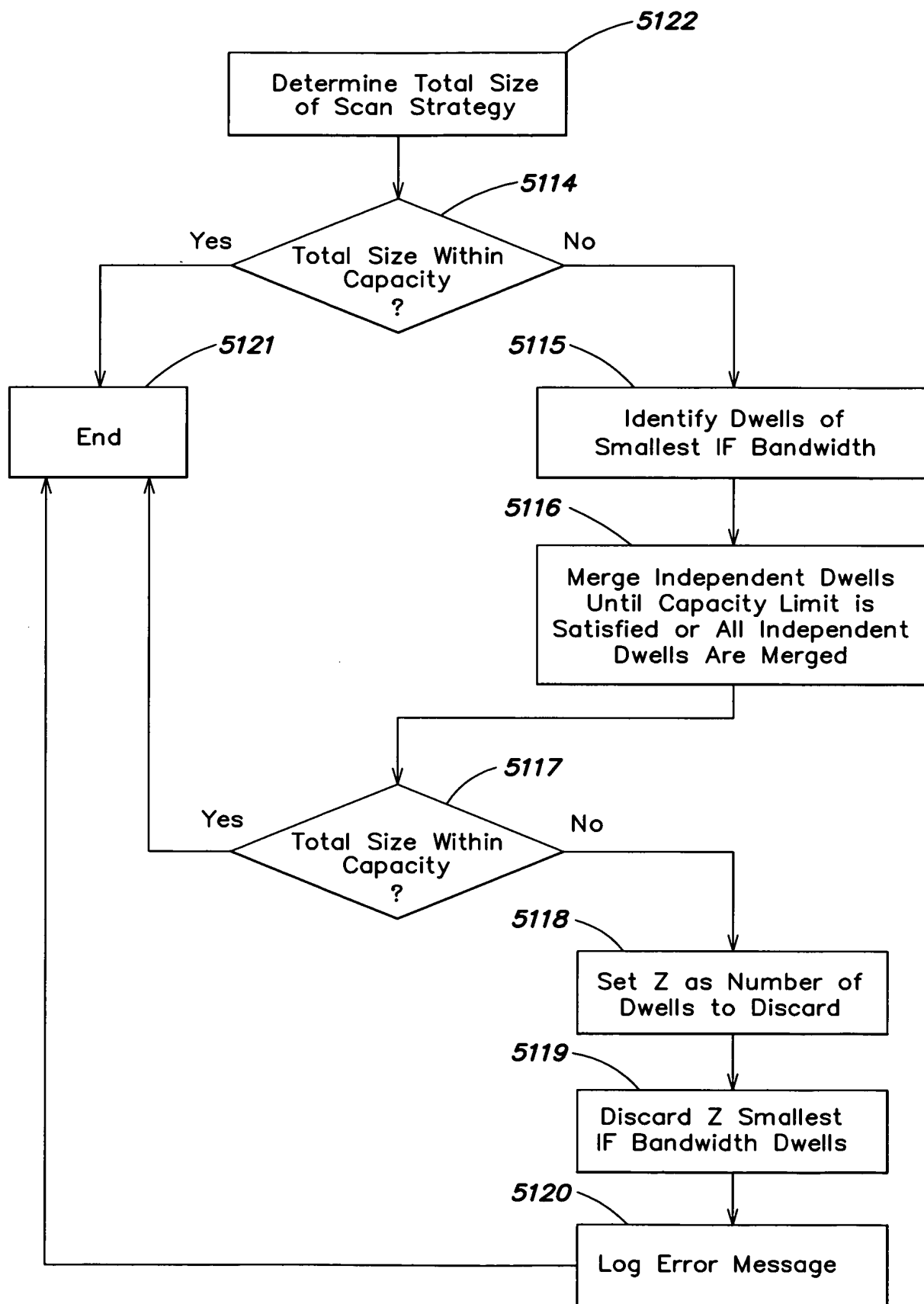


FIG. 29

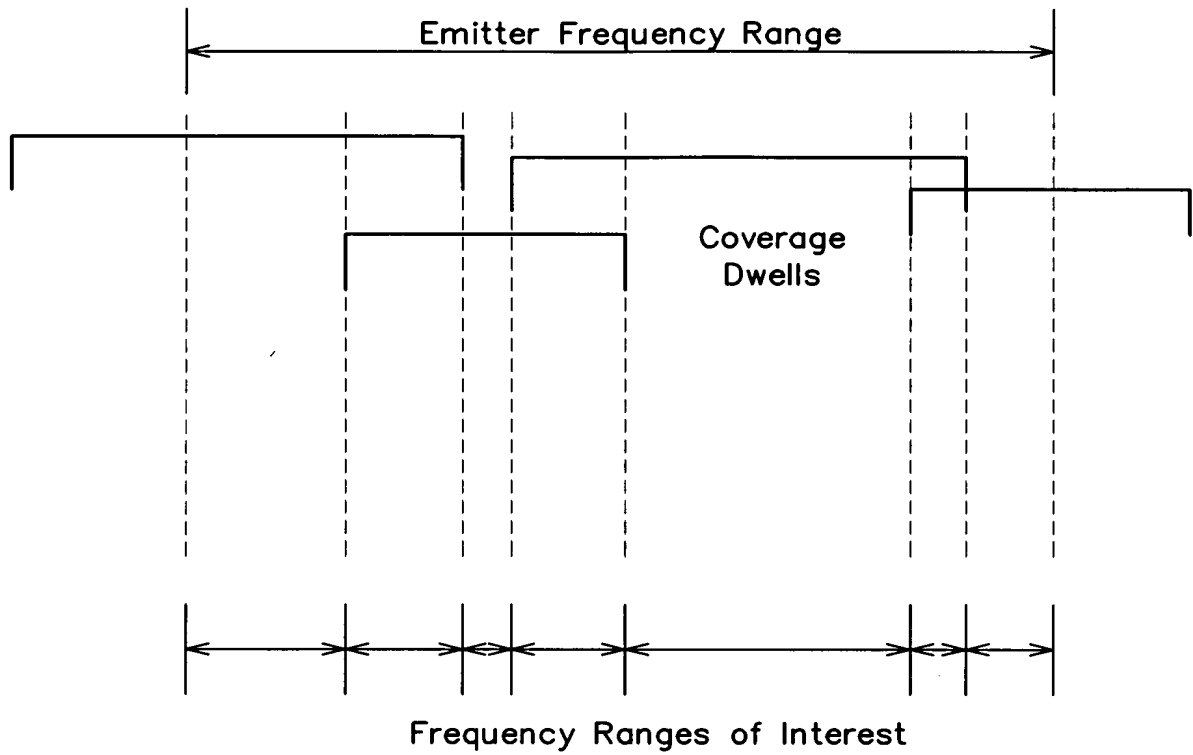


FIG. 30

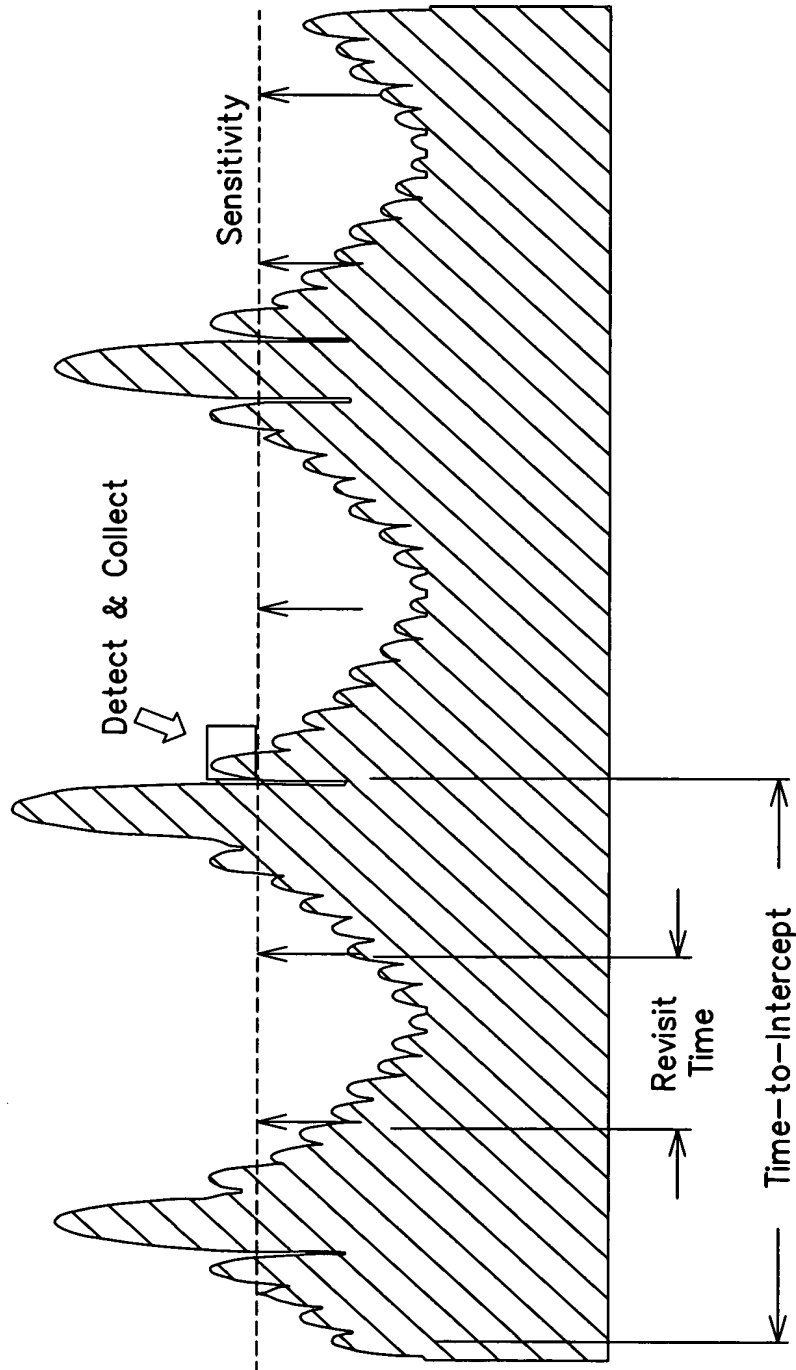


FIG. 31

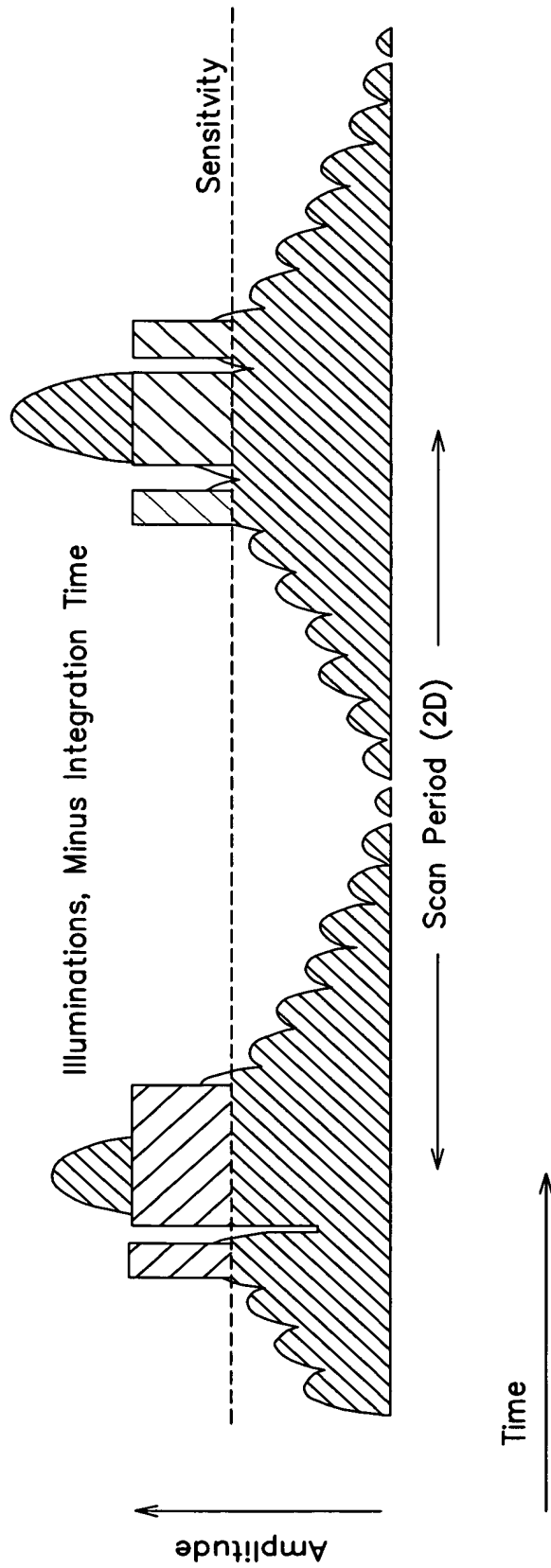


FIG. 32